



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/737,108	12/15/2003	Ashok C. Khandkar	43662-Amedica	5506

7590 03/10/2005

KELLY BAUERSFELD LOWRY & KELLEY, LLP

Stuart O. Lowry

Suite 1650

6320 Canoga Avenue

Woodland Hills, CA 91367

EXAMINER

BLANCO, JAVIER G

ART UNIT

PAPER NUMBER

3738

DATE MAILED: 03/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center"><b>Office Action Summary</b></p>	<b>Application No.</b> 10/737,108	<b>Applicant(s)</b> KHANDKAR ET AL.	
	<b>Examiner</b> Javier G. Blanco	<b>Art Unit</b> 3738	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 November 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) 4-6 and 17-41 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 7-16 and 42-53 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 November 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 3738

## **DETAILED ACTION**

### ***Response to Amendment***

1. Applicants' amendment of claims 1-3, 7-9, 16, 42-44, and 53 in the reply filed on November 22, 2004 is acknowledged.

### ***Drawings***

2. The amendments to the drawings (Figures 1-3, 7-9, 10-12, 16-18, 20, and 21) were received on November 22, 2004.

### ***Claim Objections***

3. Claim 52 is objected to because of the following informality: please delete "part-cylindrical" (see lines 1-2). Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-3, 7, 8, 9, 12, 13, 15, 16, 42-45, 48, 49, and 51-53 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Ferree et al. (US 2004/0024462 A1).

Art Unit: 3738

Referring to Figures 1A-1C and 2A-2b, Ferree et al. disclose a disc implant comprising (i) a pair of end plates (saddle-shaped components) for affixation to adjacent vertebral bodies; and (ii) a pair of bearing components formed respectively on said end plates and respectively defining a pair of elongated bearing surfaces (saddle-shaped articulating surfaces) extending generally on orthogonal axes relative to each other. See anterior (Figure 1A), lateral (Figure 1B), and oblique (Figure 1C) views. Each of said bearing surfaces defining opposite end segments of generally convex part-circular cross sectional shape separated by a central segment defining a generally concave bearing seat, wherein each of said concave bearing seats being further defined by a generally part-circular cross sectional shape defined by laterally spaced-apart offset radii to include a generally flattened base segment (see Figure 2B: central shaded area; see page 1, paragraph 0023) interposed between a pair of curved sides (see Figures 2A and 2B). Each of said saddle-shaped components is made of chrome cobalt, titanium, ceramic, metal(s), alloys, or other materials (see page 1, paragraph 0008). Further, each of said saddle-shaped components can be treated to promote bone ingrowth (see page 1, paragraph 0009) and can include projections such as keels (see Figures; see page 1, paragraph 0009).

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 3738

7. Claims 10, 11, 46, and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ferree et al. (US 2004/0024462 A1) in view of Eisermann et al. (US 6,740,118 B2).

Ferree et al. disclose the invention as claimed (see 102 rejection above) except for particularly disclosing the upper and lower plate as having a lordotic taper. However, this is well known in the art. For example, Eisermann et al. disclose a disc implant comprising upper and lower plates (bearing surfaces 54) having a lordotic taper (see, for example, Figure 4) in order to accommodate the particular lordotic angle or morphology of the portion of the spinal column in which the disc implant is used (see column 6, lines 3-26). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have combined the teaching of a disc implant comprising upper and lower plates each one having a lordotic taper, as taught by Eisermann et al., with the disc implant of Ferree et al., in order to accommodate the particular lordotic angle or morphology of the portion of the spinal column in which the disc implant is used.

8. Claims 14 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ferree et al. (US 2004/0024462 A1) in view of Eisermann et al. (US 6,740,118 B2).

Ferree et al. disclose the invention as claimed (see 102 rejection above). Although Ferree et al. disclose the upper and lower plates as treated to promote bone ingrowth (see page 1, paragraph 0009), they did not particularly disclose those plates as having a generally convex shape for engagement with and affixation to adjacent vertebral bodies. However, this is well known in the art. For example, Eisermann et al. disclose a disc implant comprising upper and lower plates each one having a roughened, curved/arcuate configuration that corresponds to the particular contour of the adjacent vertebral endplate against which plate abuts in order to inhibit

Art Unit: 3738

migration of the disc implant relative to the adjacent vertebra (see column 6, lines 3-26).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have combined the teaching of a disc implant comprising upper and lower plates each one having a roughened, curved/arcuate configuration that corresponds to the particular contour of the adjacent vertebral endplate against which plate abuts, as taught by Eisermann et al., with the disc implant of Ferree et al., in order to inhibit migration of the disc implant relative to the adjacent vertebra.

#### *Response to Arguments*

9. Applicant's arguments with respect to claims 1 and 42 have been considered but are moot in view of the new ground(s) of rejection.

#### *Conclusion*

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Shelokov (US 6,039,763 A), Ferree (US 6,706,068 B2), Mitchell (US 2004/0172135 A1), and Zubok et al. (US 2004/0176845 A1).

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after

Art Unit: 3738

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


12. This application contains claims 4-6 and 17-41 drawn to an invention nonelected without traverse in the Paper filed June 1<sup>st</sup>, 2004. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Javier G. Blanco whose telephone number is 571-272-4747. The examiner can normally be reached on M-F (7:30 a.m.-4:00 p.m.), first Friday of the bi-week off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Corrine McDermott can be reached on (571) 272-4754. The fax phone numbers for the organization where this application or proceeding is assigned is 703-872-9306 for regular communications and After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0858.

JGB

March 4<sup>th</sup>, 2005



David H. Willse  
Primary Examiner